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## 11.1 Faculty Strategies for Learning to Teach at a Distance with Instructional Technology

### Editorial

Almost every institution that offers online courses also provides some kind of training opportunities for its new instructors-even more opportunities, sometimes, than it provides to those who teach in classrooms. There seems to be a general recognition at the institutional level that teaching at a distance can strain or exceed a faculty member's repertoire of teaching strategies and his or her ability to adapt, unaided, to this new environment.

My colleagues and I spend a lot of time with faculty members as they make what we consider to be the difficult transition from their classrooms to online teaching and learning. Spending time with their distributed learning designers is not mandatory, but many do accept our offers of course planning assistance and formal technical training and are willing to spend a considerable amount of time with us prior to teaching their first course.

But when my colleagues and I know that someone is not only teaching online for the first time, but teaching for the first time *period*, we become very apprehensive when our offers of assistance and training appear to be ignored. We feel it is important to visit every new faculty person, and we proactively seek them out. We often feel fortunate if we can persuade these new faculty members and adjuncts to give us even an hour or so-far too brief a time, we feel, for adequate preparation.

This month's article provides information about the motivation and learning strategies of those faculty who consciously plan their own preparation to teach online. It appears that formal faculty development opportunities may play only a minor role in the larger context of their self-directed learning efforts. Continuing to make ourselves available, publicizing our services, and providing abundant self-teaching and informational resources may indeed be our best strategies. It is reassuring when research comes along to validate our practices <chuckle>.

Mauri Collins  
DEOSNEWS Editor

# **Faculty Strategies for Learning to Teach at a Distance with Instructional Technology**

Rebecca D. Armstrong

## **Introduction**

The expansion of distance education technologies provides unique opportunities for institutions of higher education to deliver credit courses and continuing education courses to geographically diverse adult audiences. This phenomenon has required institutions to reevaluate how they support and facilitate faculty members' continuing professional development as distance instructors (Olcott and Wright 1995). The problem is that the adoption of interactive distance education technologies to teach students at a distance exceeds faculty members' adaption of their teaching to accommodate the new technologies (Green and Gilbert 1995).

## **Review of Literature**

Faculty development has been a focus of attention on higher education campuses since the late 1960s, and many new projects and programs have been launched under the banner of faculty development (Riegle 1987). Consequently, with the increased use of instructional technology for distance education, institutions have turned to faculty development to support this initiative. Lewis, Alexander, and Farris (1997) reported that, in 1995, approximately 60% of the institutions of higher education offering distance education courses had some sort of training available for (but not required of) the faculty members who were teaching at a distance. Numerous authors (e.g., Cyr 1997; Gunawardena 1990; Olcott and Wright 1995) stress the need for support and comprehensive faculty development for instructors who plan to teach at a distance. Dillon and Walsh's (1992) literature review found only nine studies that focused on faculty-training programs addressing the skills required for distance teaching, teaching styles of distance teachers, and the training needs of faculty. However, since Dillon and Walsh's (1992) review, numerous presentations and publications about the programs and activities have helped faculty learn how to teach at a distance.

Faculty members in their professional roles as teachers-scholars reflect the adult learner's orientation toward learning: that is, learning to solve problems, ask questions, or address responsibilities they have in their everyday life (Cross 1981; Knowles 1980; Tough 1971). Central to Knowles' (1980) concept of andragogy was the critical assumption that, as adults mature, they move from dependency to more self-directedness in learning. In Candy's (1991) review of the self-directed learning literature, some authors suggested that adults proceed in a logical and deliberate way in their learning, whereas other authors suggested a more serendipitous or heuristic approach organized around general intentions and resources.

Although the faculty member is recognized as being very important to the success of a distance learning venture, comparatively little research exists on this group. No studies have been located that examined how faculty members learn to teach at a distance. Therefore, the purpose of this study was to understand from their perspective how faculty members learn to use and improve their use of (a) instructional design, (b) technology, and (c) andragogy (pedagogy) on their own for teaching at a distance in contrast to participating in required training or faculty-development activities (Armstrong 1998).

## Purpose and Methodology

Because very little literature links faculty members' (as adult learners) professional development in their work environment with a new medium of teaching (or similar "problem" such as teaching at a distance), an exploratory, qualitative approach was undertaken. With this approach, the researcher sought to gain a more holistic understanding of the context and process(es) faculty members experience in their professional development as teachers at a distance. The exploratory, qualitative methodology deemed most appropriate used a constant-comparative analysis of the data to generate substantive grounded theory (Glaser and Strauss 1967; Strauss and Corbin 1990).

A pilot study was conducted to refine the interview guide, provide practice in telephone interviewing, and test the procedures for identifying and contacting faculty members (prospective participants). After the pilot study, semistructured, conversational telephone interviews were conducted with a purposeful sample of 28 faculty members-seven beginners, five novices, and sixteen experienced individuals-spread among four institutions.<sup>1</sup> Representing eight different academic areas, the faculty participants either had taught or expected to be teaching undergraduate, graduate, and continuing professional education courses.

Faculty members were chosen from institutions-three land-grant and one comprehensive university-that did not require, but had available, introductory formal training opportunities pertaining to distance teaching with instructional technology within the year prior to the time of the study. If the faculty member contacted was willing to participate and fit into the study's parameters (the level of experience was the initial screening attribute, followed by discipline, gender, and academic rank), he or she was added to the potential participant pool of that institution. From the potential participant pool at each institution, at least five faculty members representing a range of the selected attributes were interviewed (e.g., participant #18-beginner, chemist, female, associate professor).

The telephone interviews were taped and transcribed, and a constant-comparative analysis of the data was used for naming phenomena and for developing categories and the coding manual. An interrater reliability procedure was also conducted to enhance dependability. Data reduction was facilitated using various strategies (Miles and Huberman 1984) and a general process model began to emerge.

## Findings and Discussion

Results of the data analysis point toward the following six relevant themes:

??? Institutional and personal influences stimulate faculty members to initiate their learning projects.

??? People are the main channel to finding resources.

??? The availability, accessibility, variety, and visibility of resources in the local institutional environment affects the quantity (variety) of learning methods used.

??? The learning methods used vary with experience, gender, and institution; however, overall, learning by doing was the most important strategy used.

??? Learning success is assessed primarily by student outcomes supplemented by student evaluations.

??? Faculty members who continue to teach at a distance and switch to a different mode of instructional technology appear to use multiple learning methods when multiple local resources are available.

### *Institutional and Personal Influences*

Faculty members' learning to teach at a distance was stimulated through two main avenues: institutional and personal. These instances interact to cause them to initiate exploration of how to teach at a distance. This stimulation of their learning as well as the context in which they predominately learn about distance teaching was a formal institutional setting and their work environment.

The influences and reasons given for initiating this learning project varied with experience. As they approached actual teaching, faculty appeared to have more detailed and personalized reasons or rationalizations for having started this learning project.

When study data was analyzed by institution, several different influences were identified that pertain to why faculty members began this learning project. There were similarities among the three land-grant schools that stood in stark contrast to the comprehensive university's influences. For example, the comprehensive institution's emphasis-the delivery of programs and service to the students and the faculty member's participation in distance education that resulted in a personal benefit-was not as obvious at the other institutions. Furthermore, as a group, participants at the land-grant institutions did not appear to be receiving any direct administrative encouragement to engage in distance teaching.

Interestingly, the people at the comprehensive institution gave the same reasons for starting this learning project, and in the same rank order, that the beginner group expressed-visible administrative encouragement, opportunity, and enhancing student access to programs and courses. At the comprehensive institution, the administrators' role in affecting the institutional culture-by visibly addressing the importance of distance education and encouraging faculty members to participate-was an important and nearly unanimous influence for participants. This influence-coupled with the institutional belief that the delivery of education to remote sites was important to providing students with access to courses or programs-is reflected in Olcott and Walsh's (1995) model of what should be included in an institutional support system for encouraging participation in distance teaching. Olcott and Wright's (1995) model did not account for what might be viewed as the more personal influences that stimulated faculty members to initiate this learning project.

Taylor and White (cited in Dillon and Walsh 1992) suggested that faculty members teaching at a distance are motivated by intrinsic rewards-prestige and self esteem-rather than extrinsic rewards. They report that faculty members identified some of the benefits of distance teaching as "the ability to reach new populations of learners, the opportunity to work with better prepared and more motivated students . . . the ability to use a broader range of media-based resources" (Dillon and Walsh 1992, p. 10). In this study, participants expressed personal influences such as curiosity, the opportunity to work with differently motivated learners (such as professionals in the field), or a personal benefit (no need to travel to extension courses) as reasons to initiate this learning project. Overall, personal influences contributing to their decision to teach at a distance could be viewed as enhancing their professional development, or simply making their professional life easier, or both.

Interestingly, personal influences took a different direction when faculty were compared based on gender. Women were more likely to identify themselves as risk-takers and "techies," whereas men were more likely to indicate their prior involvement with extension courses as being a personal factor influencing their learning about distance teaching.

### *People (as Assistants and/or Channels)*

Once participants decided to embark on a learning project, they felt the need to find resources to aid in their learning. Almost all participants turned to assistants (people) to facilitate their learning, and they overwhelmingly preferred to use people as their main resource or source of information. This parallels what Tough (1967) suggested are the reasons that a self-directed learner would seek assistance with his or her learning at the outset: an unfamiliarity with the field, a lack of knowledge about how to acquire the necessary skills, or needing help with specific problems (Candy 1991). As a beginner participant explains:

*And, um, so I've been doing-not a random walk-it's a guided walk, but not one in which I have any overview that has enabled me to plan how I learn. But I've just been guided by those people providing what information they could provide as I reached them in this guided tour. This is undoubtedly not the most efficient way to learn. It is for me the way I almost always do learn. (4: 8, 15-19)*

These assistants were often technical staff, instructional designers, distance education coordinators, or other faculty members. Other channels by which resources were located included library searches, the Internet, a listserv, campus memos, and notes or minutes from prior committee work on related topics.

### *Resources*

The criteria that participants in this study used in selecting resources centered around three main themes: locally available resources that were accessible and easy to get; content (which included general information, particular expertise, currency of information); and a personal benefit to the faculty member.

Even if resources are available-either locally or off campus (e.g., on the Internet)-it is how the faculty member perceives the accessibility of the resource(s) that influences whether he or she pursues many or few learning methods. Generally, if local resources were perceived to be abundant, then he or she would use multiple learning methods to prepare for teaching at a distance. However, if few local resources are perceived, the faculty member will limit his or her learning methods to only a few. This perception of resources appears to be a key factor in moderating the quantity (variety) of learning methods subsequently chosen and how faculty members pursue their learning. As a result, the institution's role in making resources accessible influenced the learning methods used.

### *Learning Methods*

The range of learning methods that participants in this study chose included learning by doing (teaching the course or practice in advance); formal learning strategies; reading; tutoring; learning from others' experience (listening and discussing); collaborating; reviewing (video tapes of their teaching); watching (observing others teaching); reflecting; engaging in related learning; and miscellaneous methods (e.g., walk-through tours and meetings).

While individual differences occur, the following trends in learning methods appeared to exist at various levels of experience. Beginners, as a group, did not choose watching (observing) as a learning method. Participants who talked about engaging in reflection as a learning method were more likely to be beginners and/or novices as they think, talk about planning, and teach their course. Novices used the widest variety of learning methods as they were preparing to teach their

first course at a distance. Participation in related learning activities (e.g., how to conduct Web searches) diminished with increasing experience such that experienced participants do not mention engaging in these activities. In addition, gender differences were found: women were much more likely to review videotapes of their distance teaching as a learning method, whereas men made more frequent observations of colleagues who were teaching at a distance.

Participants used learning methods that reflected both the professional self-directed nature of their learning project and the activities commonly used for faculty development. Whereas many professionals rely heavily on reading for continuing professional development (Means 1980), that was not the case with these participants. Overall, more participants engaged in learning by doing (i.e., teaching a distance education course or occasionally practicing with the instructional technology prior to teaching) as the primary and dominant learning method. This corresponds to reports in the literature when general adult populations are surveyed about their learning methods for all learning projects, where practice or learning by doing is among the top three choices (Cross 1981). A novice participant talks about his learning to teach:

*I mean, I, I really don't have that much background information. I guess I see more of this occurring by doing than by studying up on it ahead of time. I tend to want to get hands on and so I'm sort of anticipating this training session being able to get a feel for things. Perhaps at that point, I'll, I'll know better what it is I need. I guess, I guess that's what I'm hoping for. (13: 10, 20-25)*

Participation in formal activities such as workshops, seminars, and conferences-which are among the most common faculty development events-was also frequently reported. Participants who engaged in formal learning activities were less likely to seek tutoring to facilitate their learning.

### *Assessment*

For these participants, it was in the "doing"-the process of teaching at a distance with instructional technology-that they primarily assessed the quality of their learning. The standards by which faculty members evaluated their learning to teach at a distance with instructional technology included their comfort and satisfaction with teaching at a distance, their learning process, and student outcomes and evaluation. In this study, the timing of participants' major means of assessing their learning did not correspond to Danis' (1992) proposed sequence in that she suggested a self-directed learner would assess the quality of his or her learning and then apply the new knowledge. However, these participants placed more emphasis on applying their new knowledge and then assessing the quality of their learning. In this situation, their learning success was evaluated most importantly by student outcomes and student evaluations. One associate professor articulated this succinctly.

*Well, I, I suppose the thing that would be the best indicator is whether I were, was getting the outcomes that I desired from the students. I mean, I've taught the course that I'm teaching this summer now for ten years and I mean it's evolved significantly, it isn't the same now as it was ten years ago. But, there is certain expectations I have in terms of quantity of knowledge and level of performance in students. And I, the measure that I would use if I were judging my success at, at having learned the technology and the distance learning methodologies would be that I was getting the same results in the students at the remote site. And that the students felt comfortable, that they were getting enough to perform at the level that I was expecting. (13: 11, 25-32)*

## *Continued Learning*

Participants' anticipated future learning methods consisted of only a few of the learning methods that they had previously used, unless they continued to teach at a distance using a different instructional technology. It is possible that, by continually exploring how to best use new instructional technology, the participant is in a constant or "steady-state" of receptivity to learning, opportunities and resources. Interestingly, regardless of what a participant's initial or current learning methods were, or how frequently he or she may have engaged in formal learning methods, almost all participants said that, in the future, they would choose to attend workshops as the primary method for learning. This may reflect an increasing availability and expediency of such formal learning activities on their campuses and a good "fit" with accepted faculty-development practices.

## **Summary**

How these faculty members pursued learning to teach at a distance emerged as follows:

??? Institutional influences, in concert with personal influences, stimulated faculty members to initiate a learning project.

??? In doing so, faculty use people (assistants) as the primary channel by which to find resources. The perceived availability of resources (including assistants) in the local institutional environment affects the quantity (variety) of learning methods faculty used.

??? In addition, the specific learning methods (strategies) used by faculty members varies with experience, gender, and institution, although overall, learning by doing was the most important method used.

??? Faculty assess their learning success by relying primarily on student outcomes and evaluations.

??? Faculty members who continue to teach at a distance and switch to a different mode of instructional technology appear to use multiple learning methods as they continue to learn when multiple local resources are readily available.

## **Implications for Practice**

For adult educators and others interested in professional development, there are several key areas in which the findings may assist them in becoming more effective facilitators of faculty members' learning to teach at a distance with instructional technology:

1. understanding the importance of finding and using local resources that are both abundant and accessible;
2. knowing the particularly important role people play, not only as channels through which to seek and find resources, but also in being a resource; and
3. understanding how faculty members' preferences for learning methods differ may be important in providing resources as well as in developing responsive programs and materials to support faculty learning.

In addition, educators interested in professional development must be able to accommodate the wide variety of learning methods faculty members may engage in if they have available resources. The use of different methods based on distance teaching experience could also be exploited to tailor formal learning activities, as well as guide tutoring practices and recommendations. Furthermore, with the emphasis that faculty members place on learning by



doing, continuing support while they are in the process of teaching may facilitate and encourage more reflective practice on the process of distance teaching.

### **Implications for Research**

An exploratory qualitative study such as this stimulates many promising research questions. Studies are needed to understand a faculty member's assessment of his or her learning and how he or she monitors it. In particular, the effect and role that student performance and student evaluations play in assessing a faculty member's learning (by self and others) could be a promising and interesting avenue of research into the teaching/learning transaction where the students may or may not mirror the faculty member's success in learning to teach.

In addition, investigating how faculty-development professionals and activities can facilitate and guide faculty into becoming self-directed learners as well as reflective practitioners is worthy of future research. Longitudinal studies of individual faculty members-from the initiation of their learning project through several years of multiple distance courses-may aid understanding of this developmental process. Additional longitudinal studies should address the discrepancy between how people say they want to learn in the future and what they may actually do to learn. And, finally, more in-depth studies should be done to investigate the institutional context in which faculty members initiate their learning. Studies focused on the institutional setting may be better able to elicit the key channels and resources and how they are used by faculty members. Improved understanding of the setting may facilitate increasing faculty participation (initiating this learning project); promote, encourage, and support the transition from beginner to experienced distance instructor; and continue to explore the role which promotion, tenure, rewards, or grants play (Wolcott 1997) in faculty learning.

### **Notes**

1. Faculty members at the beginner stage had just begun to investigate learning to teach at a distance. Therefore, such faculty members range from those with rudimentary curiosity to those with ideas about a course or courses that they would like to teach. Faculty members at the novice stage had begun to develop or revise a course to be taught at a distance with instructional technology and were scheduled to teach; however, they had not done so. Experienced participants were faculty members who had completed teaching at least half of their first distance education course using instructional technology, or had completed teaching at least one semester-long course at a distance using instructional technology.

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